

## CLAIMS:

1. A receiver for a multi-carrier communication system, the receiver comprising:
  - a channel corrector (173) for receiving an input signal (CDC2) and a correction control signal (EC) to correct an amplitude and/or phase of the input signal (CDC2) to obtain a corrected signal (ED), and
- 5 a channel estimator (19) comprising a slicer (190) for performing a hard-decision on the corrected signal (ED) to obtain a decided signal (HDS), the correction control signal (EC) being dependent on a difference between the input signal (CDC2) and the decided signal (HDS) to decrease said difference.
- 10 2. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the receiver further comprises a Fast Fourier Transform circuit (16) for supplying the input signal (CDC2), the input signal (CDC2) representing a phase and amplitude of a particular received data carrier (DC).
- 15 3. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the channel estimator (19) further comprises a comparing circuit (192) for comparing the input signal (CDC2) with the decided signal (HDS) to obtain a comparison signal (NE), the correction control signal (EC) being dependent on said comparison signal (NE).
- 20 4. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the channel estimator (19) further comprises
  - an initial estimator (191) for estimating an initial estimate (IE) of the correction signal (EC) based on pilot symbols (T1, T2) in the input signal (CDC2),
- 25 a comparing circuit (192) for comparing the input signal (CDC2) with the decided signal (HDS) to obtain a difference signal (NE), and
  - a filter (193) for weighting the difference signal (NE) and the initial estimate (IE).

5. A receiver for a multi-carrier communication system as claimed in claim 1, wherein the input signal (CDC2) represents a phase and amplitude of a particular received data carrier (DC) and wherein the decided signal (HDS) represents a phase and amplitude of a transmitted carrier corresponding to the particular received data carrier (DC).
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6. A receiver for a multi-carrier communication system as claimed in claim 3, wherein the input signal (CDC2) represents a phase and amplitude of a particular received data carrier (DC) and wherein the decided signal (HDS) represents a phase and amplitude of a transmitted carrier corresponding to the particular received data carrier (DC), and wherein
- 10 the comparing circuit (192) compares the phase and the amplitude of the input signal (CDC2) with the phase and the amplitude of the decided signal (HDS), respectively, to obtain the correction control signal (EC) for controlling the channel corrector (173) to correct the phase and the amplitude of the input signal (CDC2).
- 15 7. A method of receiving a multi-carrier carrier modulated signal, the method comprising:  
channel correcting (173) receiving an input signal (CDC2) and a correction control signal (EC) to correct an amplitude and/or phase of the input signal (CDC2) to obtain a corrected signal (ED), and
- 20 channel estimation (19) comprising slicing (190) performing a hard-decision on the corrected signal (ED) to obtain a decided signal (HDS), the correction control signal (EC) being dependent on a difference between the input signal (CDC2) and the decided signal (HDS) to decrease said difference.
- 25 8. A multi-carrier communication system comprising a receiver as claimed in claim 1.
9. A wireless multi-carrier communication system comprising a receiver as claimed in claim 1, wherein said system comprises a transmitter for transmitting a modulated multi-carrier high frequent signal via air, and the receiver comprises means (1) for receiving said high frequent signal.